

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

PRECOR INCORPORATED, a Delaware
corporation; and LARRY D. MILLER, an
individual,

Plaintiffs,

v.

FITNESS QUEST, INC., a Delaware
corporation; and NEW BALANCE
ATHLETIC SHOE, INC., a Massachusetts
corporation,

Defendants.

Case No. C05-0993L

CLAIM CONSTRUCTION

I. Introduction

Plaintiffs Precor Incorporated and Larry D. Miller (hereinafter “Precor”) brought this action for patent infringement against defendants Fitness Quest Incorporated and New Balance Athletic Shoe, Incorporated (hereinafter “Fitness Quest”). Precor alleges that three of Fitness Quest’s elliptical trainers infringe on U.S. Patent No. 5,383,829 (“the ‘829 patent”), a patent held by Miller and licensed to Precor. The matter is before the Court now for claim construction pursuant to Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996).

II. Relevant Law

On patent issues, this Court applies the law of the Federal Circuit. In re Cambridge Biotech Corp., 186 F.3d 1356, 1368 (Fed. Cir. 1999). The Federal Circuit and Supreme Court have set forth a two-step analysis to determine whether a device infringes a patent. Markman, 517 U.S. at 384–91. First, the Court determines as a matter of law the proper construction of the asserted patent claims. Id. Second, the fact finder determines whether the accused devices infringe on those claims. Id.

In this first step, the Court must construe the language of the patent claims as would “a person of ordinary skill in the art at the time of the invention.” Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 381 F.3d 1111 (Fed. Cir. 2004). The Court may seek guidance from intrinsic evidence (the words used in the claims themselves, language in the specification, and the prosecution history) and extrinsic evidence (expert testimony, publications, treatises and dictionaries). See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582-83 (Fed. Cir. 1996). Although extrinsic evidence may be used if the Court considers it helpful, it is generally considered less reliable. Phillips v. AWH Corp., 415 F.3d 1303, 1318 (Fed. Cir. 2005).

The claims at issue here have already been construed in this district by another court. Precor, Inc. v. Life Fitness, No. 00-120Z (W.D. Wash. Dec. 20, 2002) (Zilly, J.). The Federal Circuit has emphasized the importance of uniformity of claim construction of a single patent. Markman, 517 F.3d at 390. There are sensible policy reasons for a Court to construe patent claims consistently with other courts that have undertaken the same endeavor. See Kx Indus., L.P. v. PUR Water Purification Prods., 108 F. Supp. 2d 380, 387 (D. Del. 2000) (“While the court’s previous opinion does not have issue preclusive effect against PUR in this case, to the extent the parties do not raise new arguments, the court will defer to its previous construction of the claims.”). In addition to lacking preclusive effect, however, the prior case also construed different terms, or the same terms in different contexts. Moreover, Fitness Quest is a new litigant and likely to have different arguments. Finally, Fitness Quest notes that because that

case settled, the constructions never were subjected to the analytic crucible attendant to appellate review. Thus, the decisions from Precor's previous action will be considered important to this inquiry, but by no means dispositive.

III. Claim Construction

Six of the seven following terms or phrases submitted for construction appear in the description of an exercise device in claim 7 and are incorporated by reference in asserted claims 17–23. The claim describing the basic exercise device is repeated here to provide context (disputed terms in italics):

7. An exercise device comprising:

- a frame having a pivot axis defined thereon, said frame configured to be supported on a floor;
- a first and a second foot link, each having a foot engaging portion;*
- a first and second coupling member, each associated with a respective one of said foot links for pivotally coupling said foot link to said pivot axis at a predetermined distance therefrom* so that a first end of said foot link travels in an *arcuate path* about said axis;
- a guide supported by said frame and operative to engage said foot links* and to direct a second end of each foot link along a preselected, *reciprocating path of travel* as the first end of said foot link travels along said arcuate path; so that when said exercise device is in use, and when the second end of one of said foot links travels from a point at a rearward end of said reciprocating path, forward along said path, the heel portion of a user's foot associated therewith initially rises at a faster rate than the toe portion, and when the second end of said foot link travels rearward along said reciprocating path of travel from a forward end thereof, the heel portion of the user's foot initially lowers at a faster rate than the toe portion, and *so that the heel portion of said user's foot travels in a path which does not encompass said pivot axis.*

The seventh phrase submitted for construction is a separate claim describing a variation of the exercise device described in claim 7. The full context of that claim is set forth in its subsection below.

A. “a first and a second foot link, each having a foot engaging portion”

The Court adopts Precor's proposed construction of this term, which is the exact words that are used in the claim: “a first and a second foot link, each having a foot engaging portion.” Where the claim terms are susceptible to an ordinary meaning, that is the meaning the Court should adopt. Phillips, 415 F.3d at 1312–13. Fitness Quest does not suggest that someone of ordinary skill in the art would interpret the term any differently. Johnson Worldwide Assocs.,

1 Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999). Instead, Fitness Quest supports its
 2 construction of the phrase by arguing that the phrase “foot *supporting* link” that engages the
 3 “user’s” foot is more accurate. This is because the “supporting” function is logically implied by
 4 the other claims, and suggested by the figures. Thus, including a few additional terms and re-
 5 organizing the phrase would simply make what is clear to someone of ordinary skill in the art
 6 also clear to the lay jury, as required by Phillips, 415 F.3d at 1314. Fitness Quest’s proposed
 7 construction goes beyond this innocuous proposal by reading additional limitations onto this
 8 claim based on the specifications. The Court must not read limitations into a claim simply
 9 because they might be suggested in the specifications or figures. Comark Communications, Inc.
 10 v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998).

11 **B. “a first and second coupling member, each associated with a respective one of said**
 12 **foot links for pivotally coupling said foot link to said pivot axis at a predetermined**
distance therefrom”

13 Precor argues that this Court should construe “coupling member” as the court did in the
 14 previous action, as a “coupling structural unit,” and construe “a predetermined distance” as “a
 15 distance that is known or determined before the use of the claimed device.” The Court should
 16 accord the remainder of the words their ordinary meaning. Fitness Quest argues that this claim
 17 should be construed as a mean-plus-function claim pursuant to 35 U.S.C. § 112 ¶ 6, involving,
 18 as drawn in the specifications, “(a) a pair of bell cranks, each of which is connected to a
 19 component defining the pivot axis and pivotally connected to a first end of a corresponding foot
 20 link; (b) a double wheel flywheel supported for rotation about the pivot axis, each wheel being
 21 pivotally connected directly to the first end of a corresponding foot link; or (c) equivalent
 22 structures thereof.” Alternatively, Fitness Quest argues that the claim should be construed as:

23 A pair of members, each of which: (1) is directly connected to a component defining the
 24 pivot axis; (2) is directly connected to the first end of the foot link at a single connection
 25 point defining a common axis between the member and the foot link; (3) permits
 rotational movement of the foot link relative to the member about the common axis; and
 (4) maintains a fixed distance between the common axis and the pivot axis.

26 Fitness Quest proposes this construction if the Court does not conclude that the claim should be

1 construed as means-plus-function.

2 Pursuant to § 112 ¶ 6, a means-plus-function claim is a claim that is “expressed as a
3 means or step for performing a specified function without the recital of structure, material, or
4 acts in support thereof, and such claim shall be construed to cover the corresponding structure,
5 material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112 ¶ 6.
6 Unless a claim includes the phrase “means to” and then describes a function, the Court typically
7 will not construe the claim as invoking § 112 ¶ 6. Greenberg v. Ethicon Endo-Surgery, 91 F.3d
8 1580, 1584 (Fed. Cir. 1996) (“the use of the term ‘means’ has come to be so closely associated
9 with ‘means-plus-function’ claiming that it is fair to say that the use of the term ‘means’
10 (particularly as used in the phrase ‘means for’) generally invokes section 112(6) and that the use
11 of a different formulation generally does not.”). Fitness Quest does not rebut this presumption.

12 The Court agrees with the reasoning in Judge Zilly’s construction and from a prior
13 Federal Circuit opinion that the term “member” specifically describes ‘a structural unit such as a
14 . . . beam or tie, or a combination of these’” which connotes a definite structure to someone of
15 ordinary skill in the art. CCS Fitness v. Brunswick Corp., 288 F.3d 1359, 1367 (Fed. Cir. 2002).
16 The patent does not lose its definiteness by modifying “member” with the adjective “coupling.”
17 Rather, it specifically describes a range of devices that are structural units which couple.

18 The CCS Fitness opinion also counsels against Fitness Quest’s alternative proposed
19 construction, which limits the scope of the claims by requiring the coupling member to provide a
20 direct connection between the foot links and the pivot axis. That opinion identifies a “member”
21 as a specific term for a component that can attach different parts through a variety of structural
22 arrangements. To the contrary, Fitness Quest’s proposed construction seems like a way to limit
23 the coupling member to bell cranks and fly wheels without specifically mentioning these types
24 of components. The Court therefore rejects Fitness Quest’s alternative proposed construction of
25 coupling members.

26 The Court is not persuaded by Fitness Quest’s argument from the Markman hearing that

1 CCS Fitness and Judge Zilly's opinion relying thereon should be discounted because they are
 2 pre-Phillips decisions. First, Phillips only discounted the priority of extrinsic evidence in the
 3 scheme of claim construction, and not its validity. Second, CCS Fitness's definition of
 4 "member" has not been called into doubt by subsequent decisions and is therefore valid
 5 precedent. Finally, Fitness Quest fails to show, other than through conclusory assertions, that
 6 the term "member" does not denote a specific set of structures, as established in CCS Fitness.
 7 While the Court acknowledges Fitness Quest's argument that pre-Phillips claim construction
 8 principles are suspect, no persuasive competing theories have been offered in the instant action.

9 Fitness Quest's other citations are unavailing. In Mas-Hamilton Group v. LaGard, the
 10 Federal Circuit held that the claim term "lever moving element" lacked "a reasonably well
 11 understood meaning in the relevant lock art" that would "save it from application of [§ 112, ¶
 12 6]." 156 F.3d 1206, 1214 (Fed. Cir. 1998). The court in that case observed that while "many
 13 devices take their names from the functions they perform," the patent holder failed to "direct[]
 14 this court to any evidence demonstrating that the district court erred in determining that the term
 15 . . . lacks a reasonably well understood meaning in the relevant lock art." Id. This opinion does
 16 not dictate the result in the instant case because "coupling" is easily understood to provide more
 17 structural information than "lever moving."¹ The disputed claim terms in the remainder of
 18 Fitness Quest's cases are equally distinguishable. Power Integrations, Inc. v. Fairchild
 19 Semiconductor Int'l, Inc., 422 F. Supp. 2d 446 (D.Del. 2006) ("soft start circuit," a "soft start"
 20 could be accomplished in numerous ways); Aspex Eyewear, Inc. v. Altair Eyewear, Inc., 386 F.
 21 Supp. 2d 526 (S.D.N.Y. 2005) ("retaining mechanisms for supporting," "supporting" provides
 22 inadequate structural guidance for an object as vague as a "mechanism"); Verizon Cal. Inc. v.

23
 24 ¹ Indeed, during cross-examination at the Markman hearing, Fitness Quest's expert strongly
 25 implied that, to him, a "coupling member" had a specific structural meaning when he denied that a
 26 number of different arrangements (e.g., numerous levers connected by numerous pivoting joints or a
 pulley system) proposed by counsel for Precor could be considered a member that coupled the first lever
 to the last lever.

1 Ronald A. Katz Technology Licensing, L.P., 326 F. Supp. 2d 1060 (C.D.Cal. 2003) (“credit
2 verification structure,” the function of “credit verification” could be accomplished in far too
3 many ways to provide any meaning to the “structure” it described).

4 Furthermore, the proposition that the ‘829 patent’s use of the term “coupling member” is
5 intended to be a generic term for a set of structural units that couple the foot links to the pivot
6 axis is also suggested in the specification, which asserts that “various mechanical arrangements
7 may be employed to couple the foot links.” Col. 4, lines 28–29. Claim 2 proposes an
8 embodiment of claim 1 that includes bell cranks. This intrinsic evidence implies that bell cranks
9 are only one potential embodiment of the coupling members. See Comark, 156 F.3d at 1187
10 (claim differentiation). Different types of coupling members other than flywheels and bell
11 cranks are also implied in the specification, where the motion of the foot link end is described as
12 “arcuate,” which is defined as “a circular oval or other such closed, curved path of travel.” If
13 only bell cranks and flywheels were taught, then the path of travel would only need to be
14 described as a circle.

15 The second major point of disagreement between the parties’ constructions of this claim
16 is the meaning of the phrase “predetermined distance.” Fitness Quest argues that this phrase
17 should be understood to mean a “fixed distance.” Precor argues that this Court should employ
18 Judge Zilly’s definition, which rejected “fixed distance” and construed the phrase literally, to
19 mean “a distance determined beforehand.”² The Court employs Precor’s proposed construction
20 based on the doctrine of claim differentiation and because of the Court’s conclusion that
21 “arcuate” does not mean only circular.

22 First, the doctrine of claim differentiation dictates the conclusion that the end of the foot
23 link is not always at a fixed distance from the axis in the generic embodiment because claim 73
24

25 ² Judge Zilly’s actual construction for “predetermined distance” was “the amount of separation
26 between one end of a foot link and the pivot axis before use of the claimed device; this amount of
separation need not be unvarying while the machine is in use.” Order at 17.

1 teaches a device “wherein said first and second coupling members couple their respective foot
2 links to said pivot axis *at a fixed distance* therefrom.” ‘829 Patent, Col. 8, lines 5–8 (emphasis
3 added). In order for this claim to mean something different than a claim that describes the
4 distance as pre-determined, the term “pre-determined” cannot mean “fixed.” Juxtaposing these
5 terms renders the difference obvious: Pre-determined means simply “determined beforehand”
6 while fixed means “always the same.”

7 Second, it is clear that if the path of the foot links can be circular or non-circular, as the
8 Court concludes that arcuate means, the distance from the end of the foot link to the axis will not
9 necessarily be the same. If the foot link path is circular, then the distance will be fixed and pre-
10 determined. If the foot link path is oval or some other closed curved path of travel, then the
11 distance will be variable and pre-determined.

12 The Court therefore construes this phrase as follows: “a first and a second structural unit
13 which couples, each associated with a foot link, that attaches its associated foot link to the pivot
14 axis at a distance from the axis that is not necessarily unvarying while the machine is in use, but
15 is determined beforehand.”

16 **C. “arcuate path”**

17 Precor proposes that this term be construed the same way Judge Zilly and the patent itself
18 defines it, as “a circular oval or other such closed, curved path of travel.” Fitness Quest
19 proposes that this term be construed as “a circular path.” The Court construes this phrase as
20 Precor suggests, as “a circular oval or other such closed, curved path of travel.”

21 Neither party argues that the term “arcuate” was used correctly in the patent. The term
22 means “bent or curved in the form of a bow.” Webster’s Third New International Dictionary
23 115 (1981). This seems to contradict the inventor’s own definition of the term: “Within the
24 context of this application, ‘arcuate’ shall refer to a circular oval or other such closed, curved
25 path of travel.” Col. 3, lines 12–14. Regardless of the word’s ordinary meaning—which neither
26 party argues for—the Court must defer to the definition contained in the patent where the

1 inventor has clearly set forth a definition. Johnson Worldwide Assocs. v. Zebco Corp., 175 F.3d
2 985, 990 (Fed. Cir. 1999) (patentee acts as his own lexicographer).

3 Fitness Quest's best arguments against this result are that (1) the patent figures, which
4 include bell crank or fly wheel coupling members, teach a circular path, and (2) Miller refers to
5 a "generally circular" path during patent prosecution. These arguments are unavailing. First, the
6 figures are designed to illuminate, not limit, the patent. Amhil Enters. Ltd. v. Wawa, Inc., 81
7 F.3d 1554, 1559 (Fed. Cir. 1996). Second, the Court should not employ the patent prosecution
8 history to aid interpretation where there is more reliable and less ambiguous evidence of the
9 claim's meaning. Here, the inventor's lexicography in the specification serves that function.

10 **D. *"a guide supported by said frame and operative to engage said foot links"* (terms for**
11 **construction in italics)**

12 Precor argues that the term "guide" in this phrase should be construed exactly as Judge
13 Zilly construed "a first and a second guide member" in the previous action. The remainder of
14 the phrase, Precor argues, requires no further construction as it is susceptible to ordinary
15 meaning. Fitness Quest argues that the phrase should be construed as "a single track that comes
16 into engagement with the foot links during operation of the device." Fitness Quest argues for
17 this result based on claim differentiation and the fact that "a guide" seems to refer to a single
18 device.

19 The Court agrees with Fitness Quest that different language in this term indicates that the
20 patentee intended to teach something different than when the patentee described in claim 1 "a
21 first and a second guide member," the claim term that was construed in the prior action under
22 Judge Zilly. Contrary to Precor's rebuttal, which claims that the single-track construction is
23 absent from the proposed embodiments, the single-track embodiment is arguably represented by
24 figure 5, where there is only one label (32) for the guide track, implying that it is a single track.
25 However, the strength of Fitness Quest's proposed construction breaks down in light of
26 subsequent claims approved by the patent examiner upon re-examination. For example, claim

1 17 teaches a variation of claim 7 “wherein said guide comprises arm links, said arm links having
2 a first portion coupled to a corresponding foot link” Claim 17. Claim 17 cannot be
3 reconciled with Fitness Quest’s proposed construction of claim 7.

4 Fitness Quest appears to agree that claim 17 cannot be reconciled with its approach, and
5 argues that, moreover, the second clause that the Court must construe, “operative to engage said
6 foot links,” also prevents claim 7 from being generic to claim 17 or the embodiment in figure 4.
7 Fitness Quest claims that a guiding system cannot be “operative to engage” the foot link if it is
8 permanently coupled to the foot link, as are the arm links in figure 4. Where the coupling is
9 permanent, there can be no functionality which is operative to engage.

10 The Court rejects Fitness Quest’s arguments for invalidity. Where a claim term is equally
11 susceptible to multiple interpretations, the Court must construe it so as to preserve its validity.
12 Modine Mfg. Co. v. U.S. Int’l Trade Comm’n, 75 F.3d 1545, 1557 (Fed. Cir. 1996). Here, a
13 reasonable alternative to Fitness Quest’s dramatic proposal is presented in the patent prosecution
14 record, where Miller explains why claim 7 (then claim 36) employed the term “guide” instead of
15 “a first and a second guide member”:

16 Claim 36 eliminates reference to the first and second guide member which are further
17 described as engaging and directing the foot links along a pre-selected, reciprocating path
18 of travel; and alternatively, characterizes this element as a “guide” which engages the foot
19 links and directs them along the pre-selected reciprocating path of travel. This language
20 acknowledges that the ends of the foot links may be guided by a single wide element such
21 as a track, as well as by two discrete members.

22 Auvil Decl. Ex. D at FQI00067. The inventor’s explanation is clear: the term “guide” is
23 intended as a more generic description of the type of system that could be designed to engage
24 the foot links. The Court further finds that Fitness Quest’s argument that the arm links are not
25 operative to engage the foot links if they are permanently attached to the foot links is unavailing.

26 The Court adopts this construction for the disputed phrase: “a guide, consisting of a
straight or curved ramp or arm links, which engages said foot links.” This construction satisfies
Fitness Quest’s argument that “guide” must mean something different than “a first and a second

1 guide member,” without rendering claims invalid.

2 **E. “reciprocating path of travel”**

3 Precor argues that this claim should be construed exactly as the patentee defined it in the
4 patent: “any back and forth path of travel which is repetitively traversed by the end of the foot
5 link and includes a generally linear path of travel as is provided by the flat track 28, 32 of the
6 Figure 1 embodiment as well as curved paths provided by other embodiments shown here in.”
7 Col. 3, lines 20–26. Fitness Quest argues for a more straightforward version: “Any back and
8 forth path of travel which is repetitively traversed.” Fitness Quest here is in the unusual position
9 of arguing that the longer version might be misinterpreted by the jury as limiting. Precor argues
10 against Fitness Quest’s version because it fails to make explicit that the reciprocating path could
11 be straight or curved. Because the Court has included reference to curved or straight paths in the
12 previous claim construction, the longer, more explicit version proposed by Precor is
13 unnecessary. Fitness Quest’s shorter, clearer proposed construction will be used.

14 **F. “so that the heel portion of said user’s foot travels in a path which does not
15 encompass said pivot axis”**

16 Precor states that this claim should be construed exactly as it is written, because the
17 words are clear to an individual of ordinary skill in the art. Fitness Quest argues that these terms
18 would be ambiguous to a lay jury, contrary to the guidance in Phillips, 415 F.3d at 1314.
19 Fitness Quest proposes instead a broader interpretation that construes the claim as including any
20 potential action where the user’s foot crosses the vertical plane created by the pivot axis: “the
21 user’s heel never passes rearward beyond a vertical plane contain the pivot axis.” Fitness
22 Quest’s construction reflects the purpose of the claim, which was proposed by the claim
23 examiner as a way of distinguishing another patent.

24 However, Fitness Quest’s proposed construction is problematic because it means
25 something different than the meaning of the words in the claim. In fact, it is more broad.
26 Fitness Quest’s construction of the claim would include a variation of this exercise device which

1 allowed a user's heel to cross a vertical plane established by the pivot axis, but not encircle the
2 pivot axis. Although it is not clear that such a motion is possible using the claimed device, it is
3 preferable to use Precor's more limited instruction. Because "encompass" may be a non-
4 obvious term to a lay jury, however, the Court will add the term "encircle" to clarify: "so that
5 the heel portion of said user's foot travels in a path which does not encompass or encircle said
6 pivot axis."

7 **G. "said arm links having a first portion coupled to a corresponding foot link and a**
8 **second distal portion coupled to said frame"**

9 This term arises in claim 17, which reads in full: "17. The exercise device according to
10 claim 7, wherein said guide comprises arm links, said arm links having a first portion coupled to
11 a corresponding foot link and a second distal portion coupled to said frame." The parties
12 disagree on the meaning of the word "distal" in the context of the proper construction of the
13 phrase "a second distal portion." Precor argues that "distal" simply means "at a distance" or, in
14 other words, "at some distance away." The extent of that distance relative to any other of the
15 arm link is not established by this construction. Fitness Quest argues that "distal" should be
16 construed as "beyond the mid-point." In other words, the second portion of the arm link would
17 be shorter than the first portion.

18 Finding no guidance from the specification or extrinsic evidence, the Court concludes
19 that the words of the claim itself imply that "distal" simply means "further away from." In other
20 words, the second portion of the arm link is further away from the foot link than the first portion.
21 The Court is unpersuaded by Dr. Brienza's conclusory assertion that someone of ordinary skill
22 in the art would interpret "distal" as meaning at a point beyond the mid point of the arm link. To
23 the contrary, nowhere in the claims is there any implication about the lengths of the first and
24 second portions of the arm link. Based on the proposed embodiments in the figures that include
25 arm links, the Court concludes that "distal" means only that the second portion is further away
26 than the first portion from the foot links that are described in the same claim. Thus, the

1 construction of claim 17 is as follows: “17. The exercise device according to claim 7, wherein
2 said guide comprises arm links, said arm links having a first portion coupled to a corresponding
3 foot link and a second portion, which is further away from said foot links, coupled to said
4 frame.”

5 **IV. Conclusion**

6 The claim terms will be construed in accordance with this order.

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8 DATED this 23rd day of August, 2006.

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11 Robert S. Lasnik
12 United States District Judge
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